

## VALVE PIN GUIDING TIP FOR A NOZZLE

### ABSTRACT OF THE DISCLOSURE

An injection molding apparatus includes a manifold and a nozzle, which is received in an opening in a mold plate, including a nozzle channel for receiving the melt stream from the manifold channel, the nozzle channel being aligned with a first axis. A nozzle tip is received in a downstream end of the nozzle. The nozzle tip includes a melt channel for receiving the melt stream from the nozzle channel of the nozzle. A valve pin guiding portion is provided at a downstream end of the nozzle tip including an outwardly extending flange having a peripheral edge that abuts an inner wall of the opening to align the melt channel with a second axis through a mold gate. A valve pin is movable through the melt channel to selectively open the mold gate. Wherein the nozzle tip is flexible in order to compensate for the first axis and the second axis being out of alignment.